

ABSTRACT

Components for static micromixers, micromixers constructed from such components and processes carried out by the use of said micromixers are described. The components are in the form of a disk with at least one inlet opening (2) for introducing at least one feed stream into a linking channel (3) disposed in the plane of the disk and at least one outlet opening (4) for the outflow of the feed stream into a mixing zone (5), wherein the inlet opening (2) is connected in a communicating manner with the outlet opening (4) through the linking channel (3) disposed in the plane of the disk and wherein the linking channel (3) before opening into the mixing zone (5) is divided by microstructure units (6) into two or more part channels, the widths of the part channels being in the millimeter to submillimeter range and being smaller than the width of the mixing zone (5).

The micromixers can be used for mixing, homogenizing, dispersing, emulsifying, dissolving or gassing liquids or for carrying out chemical reactions and particularly combustion reactions.